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ARCHAEOLOGY AND THE BOOK OF GENESIS

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V. The Sumerians (5000-3500 B.C.)

No remains of Paleolithic or of Neolithic man have yet been discovered in Babylonia. The annual overflow of the rivers has obliterated such traces as may once have existed. Eventually, however, a race appeared that built its towns on artificial mounds raised above the level of the floods, and in these extensive relics of its civilization have survived. This race is called the Sumerian from the fact that its earliest monuments have been found in Sumer, the ancient name of Southern Babylonia.

1. *Remains of Sumerian civilization.*
—The early Sumerians had considerable artistic ability, and have left us numerous statues, reliefs, and drawings. In these the men are represented with smoothly shaved heads and faces. Their features are very different from those of the later Semitic settlers. Their only garment was a short petticoat, made apparently of flocks of wool. The women were similarly attired. Their houses were built of clay bricks, and consisted of small rooms opening off from a central court. Their graves contain either clay sarcophagi with covers, or reed mats in which the dead were wrapped. The bodies were placed in the position of an unborn child, and were provided with dishes for food and drink, with ornaments and weapons. Bronze spearheads, axes, daggers, and fish-hooks prove that

these people had already reached the age of bronze.

2. *Inscriptions.*—In the lowest levels of the mounds inscriptions are found in an extremely primitive character that approximates picture-writing. In these characters we see the beginning of the Babylonian and Assyrian cuneiform, or wedge-writing, that remained in use almost down to the beginning of the Christian era. All the stages of development can be traced from the primitive signs to the latest Assyrian and Babylonian forms. The Assyrian and Babylonian inscriptions have been deciphered, so that the phonetic value of the primitive pictographs is known.

These tablets are written in a language utterly different from the Semitic speech of the later Babylonians, which resembled Hebrew. Its meaning is disclosed by the fact that the later Semitic Babylonians prepared lists in which they gave Sumerian words together with their Semitic translations. Through patient study of these texts the Sumerian language has at last been deciphered, and within the last few years several excellent Sumerian grammars and dictionaries have been written. This language has monosyllabic roots with such an extraordinary variety of meanings as to suggest that they must have been pronounced with different tones like Chinese.

As to the antiquity of the earliest Sumerian records we know the following facts. The list of kings with the years of their reigns prepared by the Alexandrian astronomer Ptolemy carries us back to 747 B.C. for the accession of the Babylonian King Nabonassar. Then the Babylonian list of kings with the years of their reigns discovered by George Smith in 1884 carries us back from Nabonassar to Sumuabu, the first king of Babylon, about 2225 B.C. Back of Sumuabu we know the dynasties of Ur and of Isin with the lengths of their reigns, which carry us back to Urengur, king of Ur, about 2469 B.C. For the period before this we have a list of seven old Babylonian dynasties with the years of their reigns, discovered by Scheil in 1911. We know two other dynasties besides these, so that the latest date that can be assigned to Utug of Kish, the earliest known king of united Babylonia, is about 3140 B.C. At this time the cuneiform writing had already outgrown the pictographic stage, so that our oldest inscriptions must be several centuries earlier, and the origin of the Sumerian writing must lie before 4000 B.C.

The cuneiform script was in universal use throughout Western Asia down to about 1000 B.C., when the alphabet was first introduced. The discovery of the Tell el-Amarna letters has shown that it was the only writing known to the Canaanites two centuries before the Hebrew conquest. If any Hebrew records were committed to writing prior to the time of David, they made use of this character. It is not an unreasonable conjecture that the two tablets on which the original Ten Commandments were written were cunei-

form tablets; and that a later generation regarded them as written by the finger of God because they had become unintelligible, just as the modern Arabs regard the Sabaeen inscriptions as written by the Jinn. In I Chron. 18:16 David's scribe bears the Babylonian name of Shavsha, which suggests that cuneiform was still in use among the Hebrews as late as the time of David.

3. *Literature*.—Long after Sumerian had ceased to be spoken it remained the sacred language of Babylonia, just as Latin has remained the sacred language of the Roman church; and an immense body of Sumerian literature was transmitted by the priests down almost to the beginning of our era. This included epic poetry, similar in contents to Gen., chaps. 1-9, hymns, prayers, psalms, magical texts, oracles, omens, liturgies, laws, astronomical and astrological observations, medical prescriptions, and historical legends. It is certain that none of this material was invented by the Semites, but that it was merely inherited from their Sumerian predecessors. Fragments of this literature in Sumerian have been discovered that go back to at least 2000 B.C., and even these are copies of still older tablets. It is probable, therefore, that this whole literature arose in the primitive Sumerian period, and that counterparts to the opening chapters of Genesis, either in oral form or in the archaic pictorial script, existed as early as 4000 B.C. Through the later Babylonian Semites knowledge of this literature was disseminated throughout the whole ancient world. It left its deep impression upon the Old Testament, and also upon the

earliest literature of India, Greece, and the Germanic races.

4. *Cosmogony*.—The literature just discussed shows that the Sumerians were the originators of a theory of the universe that spread to the Hebrews and to the other nations of antiquity, and that lasted well down into modern times. In this theory the earth was regarded as the center of the universe. It was conceived as a square pyramid in seven stages and was called *E-KUR*, "the mountain-house." The corners of the pyramid pointed north, south, east, and west; hence the expressions "the corners of the earth," "the four quarters of the earth." The Hebrew conception was the same. The earth had four corners (Isa. 11:12), and there were four winds that blew from the four quarters (Jer. 49:36; Zech. 2:6; 6:5). In Rev. 21:16 the new earth is a four-sided terraced pyramid whose length and breadth and height are equal.

The Sumerian earth was surrounded by the ocean, out of which it rose like a mountain island. So also among the Hebrews the earth was surrounded by the sea, which God separated from the dry land (Gen. 1:9).

Over the Sumerian earth and ocean was the solid crystalline dome of the sky that divided the waters of the celestial ocean from those of the terrestrial ocean. So also among the Hebrews, the celestial waters were divided from the terrestrial by the solid dome of the firmament (Gen. 1:6-8). In this were "windows" to let the rain through (Gen. 7:11; 8:2; II Kings 7:2, 19).

Beyond the dome of the Sumerian sky were the concentric spheres of the seven planets, or wandering stars.

These in the order of their supposed distances from the earth were Moon, Sun, Mercury, Venus, Mars, Jupiter, Saturn. Their spheres were regarded as solid crystal that held the planets in their places, but permitted their light to shine through. Beyond the seven heavens of the planets was the "highest heaven," that of the fixed stars.

The Hebrews also believed that beyond the firmament were the spheres of the sun, moon, and stars. In Gen. 1:14 they are said to be "within the firmament," while in vs. 20 birds are said to fly "upon the face of the firmament." That there were a number of heavens is shown by the plural form *shamayim* and by the phrase "heaven of heavens." The seven heavens do not happen to be mentioned in the Old Testament, but are frequently alluded to in the apocryphal literature. In II Cor. 12:2 Paul speaks of the "third heaven." Yahweh's dwelling was in the "heaven of heavens," or heaven of the fixed stars (I Kings 8:27).

From the fact that planets and stars disappeared below the horizon and rose again, the Sumerians inferred that their spheres extended under the earth as well as above it, so that there were under-hemispheres that were the exact counterparts of the upper-hemispheres. The bowl under the earth that corresponded to the dome of the sky above it was *Aralu*, the under-world, the abode of spirits of the dead; and there were seven hells just as there were seven heavens. The Hebrews also believed that the cavern of Sheol was beneath the earth (Num. 16:30-33; Amos 9:2; Isa. 7:11; Deut. 32:22). Beneath Sheol the sphere of the firmament continued

and held in the "waters under the earth" (Gen. 49:25; Exod. 20:4; Amos 7:4). There were seven subterranean spheres corresponding to the seven heavens (Prov. 7:27; Isa. 14:15; Ezek. 32:23; II Esd. 7:80).

The Sumerians observed that the planets in their courses among the fixed stars did not diverge from a belt 20° wide running around the celestial sphere. This they named the "Highway of Heaven," or zodiac. They knew that the sun made the complete circuit of this belt in a year and that the moon made the circuit twelve times. Therefore they divided the belt into twelve sections corresponding to the progress of the moon during each monthly circuit. These are the signs of the zodiac, which have lasted under their ancient Sumerian names down to our own day. Certain astronomical considerations make it probable that the zodiac was invented as early as 4000 B.C. Its influence in the Old Testament is shown in the fondness for twelve as a sacred number. Thus the Ishmaelites were divided into twelve tribes (Gen. 17:20), the sons of Nahor (Gen. 22:20-24), and the Israelites (Gen. 49:28 and often). The twelve bullocks, facing three toward each of the points of the compass, that supported the laver in Solomon's Temple, symbolized the signs of the zodiac that held up the celestial ocean (I Kings 7:25); and the twelve cubits circumference of the pillars before the Temple (I Kings 7:15), and the twelve lions on the steps of Solomon's throne (I Kings 10:20) probably had the same significance. The zodiac is perhaps mentioned in II Kings 23:5.

The Sumerians observed that the sun's apparent diameter is $\frac{1}{360}$ of his

orbit around the earth, therefore they divided the orbit into 360 degrees. This is the reason why today every circle is divided into this number of degrees. The degree they subdivided into 60 minutes and the minute into 60 seconds.

5. *The calendar.*—The Sumerians began the year at the vernal equinox, and knew that it took the sun 365 days to return to the same position. Twelve revolutions of the moon occurred within the solar year, so that it was divided into twelve months. The lunar month had only 29½ days, so that twelve lunar months made only 354 days. It was necessary, therefore, about every three years to insert a thirteenth month to keep the lunar year even with the solar year. The new moon was regarded as an intermediate day falling between the months, and the remaining 28 days were divided by the moon's phases into periods of seven days each. Thus the first quarter always fell on the seventh day, full moon on the fourteenth, third quarter on the twenty-first, and dark on the twenty-eighth. In later Semitic calendars these days are called *Shabbatu*, or Sabbath. They were lunar Sabbaths instead of weekly Sabbaths. The days of the week were named after the seven planets: Sunday after the Sun; Monday after the Moon; Tuesday, or Tiwe's day, after Mars (Mardi); Wednesday, or Woden's day, after Mercury (Mercredi); Thursday, or Thor's day, after Jupiter (Jeudi); Friday, or Freya's day, after Venus (Vendredi); and Saturday after Saturn. These names have come to us through Latin translations of the Babylonian originals, and in some of our English names the Saxon equivalent

has been substituted for the Latin. The daylight and the night were divided into 24 hours, and these hours were subdivided into 60 minutes of 60 seconds each.

This system was adopted by the Hebrews, and is presupposed throughout the Old Testament. The only differences were that they changed the Sabbath from a lunar to a weekly holy day in order to free it from association with moon-worship, and that they numbered the days of the week instead of naming them after the planet-gods. Nevertheless the phrase "new moons and Sabbaths" continued to be used down to the latest times, showing the ancient connection of the Sabbath with the moon's phases. Our calendar also has come to us from ancient Babylonia through the mediation of the Greeks.

6. *Numerals, weights, and measures.*—Through the influence of their astronomy, where the number 60 played such an important part, the Sumerians calculated by 60 and its multiples rather than by hundreds or thousands. There were no signs for 100, 1,000, or 10,000, but only for 60, 600, 3,600, 36,000, etc. The unit of weight was the shekel (252 gr. troy). Sixty shekels made a mana, and 60 manas made a talent. The unit of length was the cubit, or forearm (18 inches), which was subdivided into 60 thumbs. The unit of capacity was the qa, or hin ($1\frac{1}{3}$ gallons), and 60 qas made a homer, or ass-load. This system underlies all the Hebrew weights and measures, and has not been without influence on the classical and the modern systems.

7. *Religion.*—The Sumerian religion was a polydemonism similar to that of

all other primitive peoples. There was a multitude of spirits presiding over all sorts of objects and forces. A male numen was known as *en*, "owner, lord," and a female one as *nin*, "priestess, mistress." These correspond to the Semitic *ba'al* and *ba'lat*. The celestial powers were objects of special reverence. Chief among them was the triad, Anu, the sky; En-lil, lord of the earth; and En-ki, lord of the sea. Beneath them was the triad, Sun, Moon, and planet Venus, then the four other planets, the stars, and constellations. There were hordes of ghosts and demons who afflicted men with disease and death, and it was the function of the gods to protect against their attacks. Religion consisted in sacrifice and prayer to the gods for help, astrology and divination to ascertain their will, and magic to exorcise the demons.

This religion was adopted by the invading Semites, and was by them transmitted to the whole ancient world. The religion of Canaan was strongly affected by it before the Hebrew Conquest and the Hebrews adopted certain elements of it from the Canaanites (see Paton, *Early History of Syria and Palestine*, pp. 49-55). The Hebrew word for "temple," *hēkāl*, is the Sumerian word *e-kal*, "great house." The Hebrew word for magician, *hartôm*, is the Sumerian word *har-tum*, "liver-diviner." The psalm was not found among the primitive Semites, but was a characteristically Sumerian form of composition that was transmitted to the Hebrews.

8. *Legislation.*—In 1902 the law-code of Hammurabi, king of Babylon (ca. 2100 B.C.), was discovered. With this many of the Hebrew laws, particularly

in the Book of the Covenant (Exod., chaps. 21-23), are in striking accord. It has long been suspected that the laws of Hammurabi were Semitic translations of Sumerian originals, and now Professor Clay of Yale has lately discovered some of these originals (*Orientalistische Literaturzeitung*, 1914, 1).

From this survey it appears that the primitive Sumerians of Babylonia had already developed a high civilization as early as the fourth millennium B.C. That civilization was one of the main roots of Hebrew science, literature, and religion, as well as of the culture of our modern world.

VI. The Primitive Semites (5000-3500 B.C.)

The Hebrews were a branch of the race which we call Semitic, from Sem, the Greek and Latin form of Shem, the assumed ancestor of this race in Gen. 10:21-31. To this race belonged also the Babylonians and Assyrians; the Aramaeans, or Syrians; the Canaanites; the Arabs; and the Ethiopians. In physical appearance, language, institutions, and religion these peoples bore the closest resemblance to one another. They must all have sprung from common ancestors, whom we may call the primitive Semites. For the history of Israel, and particularly for the history of its religion, it is important that we should know something in regard to the characteristics of these remote forefathers.

A. Sources of Information

From those early times in which the Semites still dwelt together in their original home no contemporary records of any sort have come down to us. The primitive Semites were unable to write, and even an authentic tradition of that period does not exist. Not one of the later branches of the race remembers its original home, or has any stories to tell about its first forefathers. Accordingly, for the reconstruction of primitive Semitic life we are confined to inferences from later phenomena.

1. *The Hebrew traditions in Gen., chaps. 10-11.*—At the close of the table of nations in Gen., chap. 10, J and P give parallel lists of the Semitic peoples that are in closer agreement than their lists are in the case of the sons of Japhet and the sons of Ham. The relation of the two narratives is exhibited in the following table:

	J	P
The sons of Shem.....	10: 21; cf. 22: 20	11: 10; 10: 22, 23, 31
Arpachshad.....	10: 24a	11: 12-13
Shelah.....	24b	14-15
Eber.....	25	16-17
Joktan.....	26-30	
Peleg.....	25	18-19
Reu.....		20-21
Serug.....		22-23
Nahor.....		24-25

2. *The comparative method of research.*

—This method assumes that ideas or institutions which several branches of a race have in common must have been possessed by their original forefathers. All the Semites spoke languages akin to Hebrew and Arabic, and all migrated from the same center; therefore words, customs, and ideas which they have in common must be primitive Semitic. The three main forms of the comparative method are *comparative philology*, which from a study of existing Semitic languages seeks to reconstruct the primitive dialect that underlies them all;

comparative ethnology, which from the institutions of the later branches of the Semitic race seeks to reconstruct the customs of their forefathers; and *comparative religion*, which among the beliefs and rites of the later Semites recognizes those that are primitive.

From these sources we gather the following conception of the life of the primitive Semites.

B. The Original Home of the Semites

There is general agreement that Arabia was the center from which the Semitic peoples radiated. This view is confirmed by several considerations: (1) The Semites are evenly distributed around this center. (2) Arabia is just the sort of region from which migration must take place. It has a vast area larger than the whole of the fertile territory occupied by the Semites. It is capable of producing immense bodies of population, but for these it yields only a scanty sustenance. The majority of its inhabitants are nomads; and when pasture becomes scarce, the stronger tribes crowd the weaker to the wall, and compel them to seek new abodes. There is thus a constant tendency to overflow into the adjacent fertile regions. There is good evidence also that Arabia was once better watered than it is at present, and that there has been an ever-increasing aridity, as in our own Southwest (see Huntington, "The Climate of Ancient Palestine," *Bulletin of the American Geographical Society*, XL, 1908, September-November). (3) Several migrations out of Arabia have occurred within historic times, notably in the Amorite migration about 2500 B.C., in the Aramaean migration, about

1500 B.C., and in the Arabian migration of the seventh century A.D., so that it is only natural to suppose that this process went on also in prehistoric times. (4) In language and in customs the Arabs of Central Arabia are the best modern representatives of the ancient Semites as they are disclosed to us by comparative philology and comparative ethnology. It is natural to suppose that they have retained their primitive characteristics because they have remained in the original home.

C. Physical Characteristics of Arabia

The heart of the Semitic world is the peninsula of Arabia, from which Syria cannot be severed as a separate physical division. Its greatest length is 1,800 miles, and its greatest breadth 1,200 miles. It has an area of 1,500,000 square miles, which is as great as that of India, or of the United States east of the Mississippi.

It consists of a plateau of limestone overlaid with sandstone, that at the southwest corner attains an altitude of 7,000 feet, and slopes gently in a north-easterly direction toward the Persian Gulf. This plateau is traversed by three mountain systems. The westernmost begins in Mount Lebanon, and extends down the east coast of the Mediterranean through the Sinaitic peninsula, and along the western coast of the Red Sea. East of this lies the parallel range that begins in the Anti-Lebanon, and continues east of the Jordan, and along the western coast of Arabia. The third mountain range is on the extreme eastern side of the peninsula in Oman. It is a continuation of the chain that runs through Persia.

The prevailing winds of Arabia are from the west and, since these sweep over the arid region of the African Sahara, they bring no moisture with them. The Red Sea is so narrow that its evaporation supplies little additional humidity, and what little is received is precipitated almost immediately on the cold summits of the western coast-range and does not reach the interior of the peninsula. The only rain that ever falls in Central Arabia is a stray shower that once in three or four years finds its way in from the Persian Gulf. For its water supply this region is dependent upon the streams that in the winter flow eastward from the coast-range, and upon the springs that are fed by subterranean channels from the same source.

The heart of Central Arabia is a chain of sandy deserts that begins in the Great Nafûd in the north, continues through the Little Nafûd in the center, and ends in the Roba el-Khali, or Dahnâ, in the south. Through the action of the sun, wind, and rain, and the great changes of temperature between day and night, the sandstones of the western coast-range have been eroded, and have drifted eastward until they have formed vast dunes. Here the rocks are covered to the depth of hundreds of feet by the sand, and the waters that flow from the coast-range are buried beyond recovery. Life in this region is possible only where some physical accident has uncovered the limestone rock and has allowed water to come to the surface in the form of a spring. Several such oases exist along the western edge of the desert. The Great Nafûd can be crossed only at the risk of life, and few Europeans have attempted the passage. The

southern desert has never been entered by a European, and there is no report that its center has been crossed even by a native. It is the driest, hottest region in the world, and its sandstorms make it a terror even to the Bedawîn. There are rumors that it contains a few widely scattered oases inhabited by exceedingly wild tribes of Arabs.

East of Anti-Lebanon and along the west coast from 21° to 28° N. Lat. there are immense lava overflows known in Arabia as *harrah*. These have prevented erosion of the sandstones, and have thus averted the formation of the sand deserts that occupy the rest of the interior of the peninsula.

The regions known as *el-Hâmid*, or "the steppe," and *Nejd*, or "the high-land," are dusty, limestone plains. Here the waters from the mountains do not sink so far beneath the surface but that they may be recovered in springs or in wells. Fertile spots are found along the Wâdy Taraba, the Wâdy Dawasir, the Wâdy Yabrin, and other valleys that descend from the western mountains. In these the date-palm will grow, and the *ghatha*, a shrub which reaches a height of fifteen feet and furnishes poles for tents and charcoal for cooking. Native to this region is the one-humped camel, without which the Bedawîn could not exist. The ass, the fat-tailed sheep, and the black-haired goat are also indigenous, and have been domesticated from time immemorial. Horses are a comparatively recent importation.

These steppes of Hâmid and Nejd are the proper home of the Bedawîn, or nomadic Arabs. Agriculture is for the most part impossible, and the scarcity of water compels the natives to live in

tents and to move frequently with their flocks and herds to new wells and new pasture grounds. Only in a few favored spots is settled life possible.

D. Racial Characteristics of the Semites

This race is characterized by a dark complexion, thick, black, curly hair, a hooked nose, rather thickened at the base, and thick lips. The mental characteristics are intense subjectivity, lack of sustained logical thought, strong emotions, and a resoluteness of will that enables the Semites to endure bravely hardship and pain. In science, art, and philosophy they have done nothing important, but in religion they have been the leaders of mankind. Judaism, Christianity, and Mohammedanism, the three great religions of the world, have all arisen on Semitic ground.

E. Languages

The Semitic languages are closer akin than are the languages of the Aryan family. The relation is similar to that which exists between Italian, Spanish, Portuguese, French, and the other descendants of Latin.

On the basis of their languages the Semites may be divided into two main

groups, the North Semites and the South Semites. The North Semites include: (1) the Babylonians and Assyrians; (2) the Aramaeans, or Syrians; (3) the Amorites and Canaanites, and their later representatives the Phoenicians; (4) the Hebrews. The South Semites include: (1) the Arabs of North Arabia; (2) the Minaeans, Sabaeans, and Katabanians of South Arabia; (3) the Abyssinians, or Ethiopians, of East Africa.

F. The Earliest Semitic Migrations

1. *The North Semites.*—Earlier than 4000 B.C. the North Semites migrated from the Nejd into Northern and Eastern Arabia, and were thus separated from their kinsmen by the sandy deserts of the Great Nafûd and Little Nafûd. In their new home they developed the linguistic peculiarities that distinguished them from the South Semites.

2. *The South Semites.*—Earlier than 4000 B.C. another migration out of the Nejd occurred in a southerly direction. The southern portion of Arabia was occupied, the Red Sea was crossed, and a strong Semitic tone was given to the populations and the languages of East Africa and Egypt.